

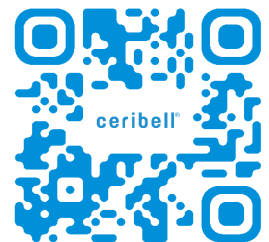
# ceribell<sup>®</sup>

Point-of-Care EEG

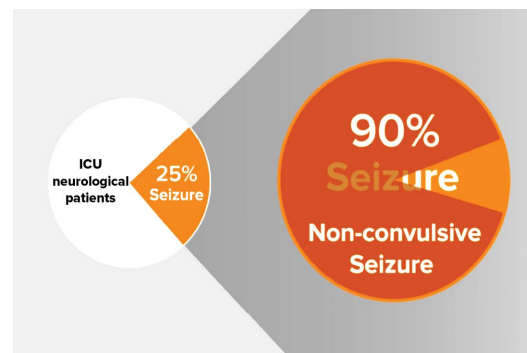
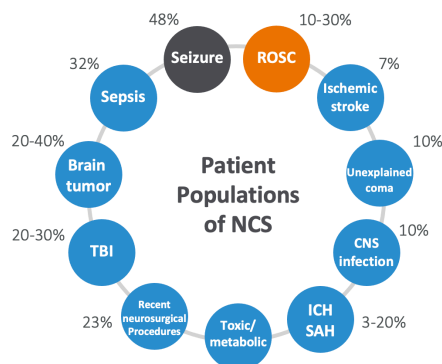


## From Suspicion to Decision in Minutes

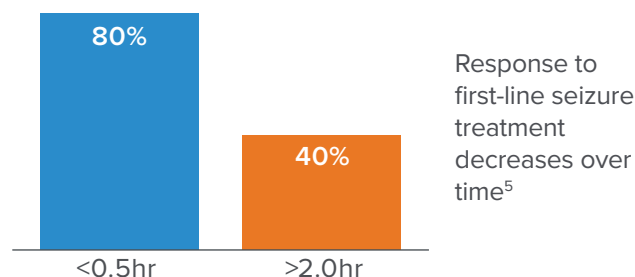
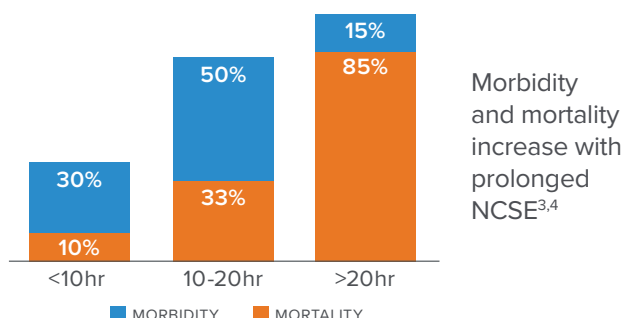
The world's first brain monitor for  
point-of-care seizure triage and  
treatment optimization



## Seizures co-exist with many critical conditions and non-convulsive seizures are highly prevalent<sup>1,2</sup>



## Time to treatment is critical



## Medical society guidelines recommend prompt EEG

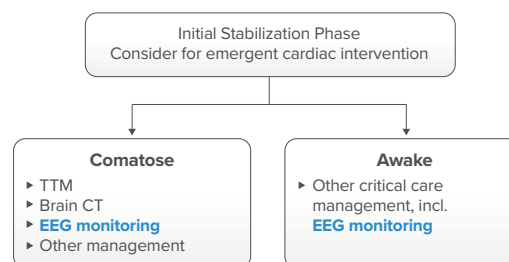
**NEUR CRITICAL CARE SOCIETY**

EEG should be initiated within **15-60 minutes** of suspected Status Epilepticus in all patients.<sup>6</sup>



We recommend **promptly performing and interpreting EEG** for the diagnosis of seizures in **all comatose patients after ROSC**.<sup>7</sup>

### 2020 Adult Post-cardiac Arrest Care Algorithm<sup>7</sup>



“Early access to EEG will lead to early detection, and hence, more effective treatment of seizures, which will in turn prevent refractory status epilepticus; neuronal injury; and potentially deleterious impacts on patient morbidity, mortality, and long-term outcome in terms of cognitive disability, overall neurologic function, and development of chronic epilepsy.”

– The DECIDE<sup>8</sup> Study Authors



The DECIDE<sup>8</sup> study is a multi-center prospective observational clinical study that evaluates the Clinical Impact of the Ceribell Rapid Response EEG.



## Any bedside clinician can set up EEG and triage seizure in minutes

### Ceribell EEG Headband

Flexible headband accommodates various head types and head sizes down to 2 years old



### Ceribell EEG Recorder

Pocket-sized, battery operated recorder that provides clinical quality EEG and on-device EEG display

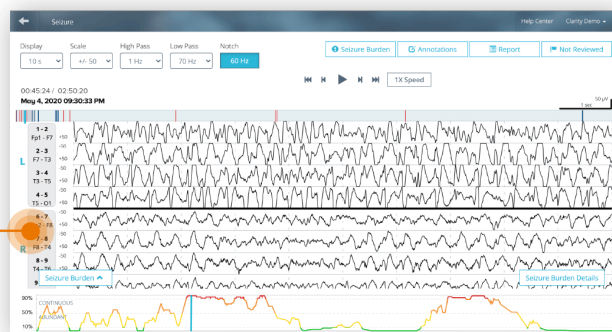
### Clarity™ EEG Monitoring

Continuous AI monitoring and alerts for dangerously high seizure burden



### Ceribell EEG Portal

Real-time streaming for remote seizure and medication management



## 24/7 continuous bedside EEG monitoring and alerts

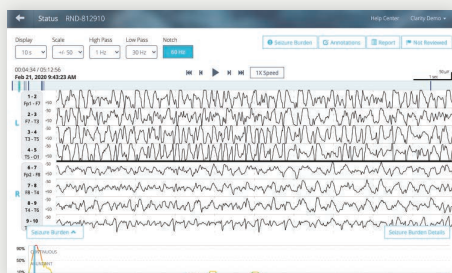
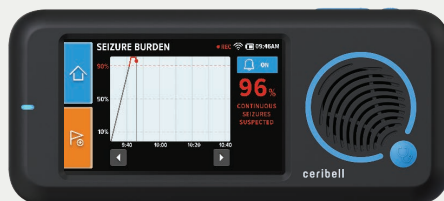
clarity™

### At the bedside, Clarity provides:

- First FDA cleared instantaneous bedside alert indicating suspected status epilepticus
- Continuous EEG monitoring and seizure burden display<sup>\*9</sup>

### Remotely, Clarity provides:

- Prelabeled EEG making EEG reading more efficient
- First FDA cleared seizure burden trend for effective seizure management



<sup>\*</sup>Seizure burden is defined by the American Clinical Neurophysiology Society (ACNS) as the percentage of time that EEG shows seizure activity.



## Clinically proven technology helps you provide better patient care

### Wait time for EEG

4 hrs

even in top academic centers with 24/7 on-site EEG technologists<sup>8</sup>

5 min

with Ceribell

	Conventional EEG	ceribell
<b>Median</b>	minutes <b>239</b>	minutes <b>5</b>
Interquartile Range	134-471	4-10
Number of observations	142	163

### Clinical Impact

- Changed clinical decisions in **40%** of cases.<sup>10,11</sup>
- Spared **49%** of non-seizing patients from unnecessary medication.<sup>12</sup>
- Expedited ED disposition in **21%** of patients.<sup>13</sup>

### Optimal care you can count on



#### Don't miss possible status epilepticus

100% sensitivity for status epilepticus<sup>14</sup>



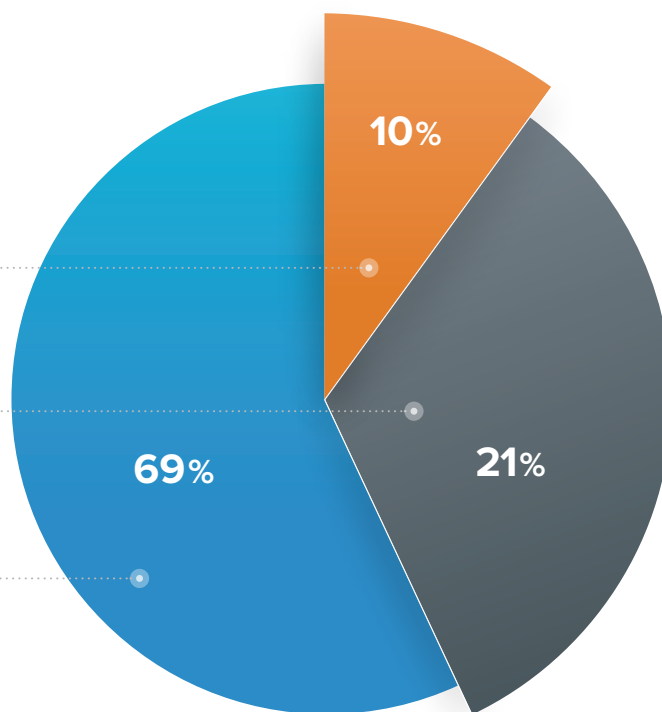
#### Highlight concerning patterns

Accurate annotations for non-emergent abnormal activity (seizure burden<sup>9</sup> = 10-90%)<sup>14</sup>

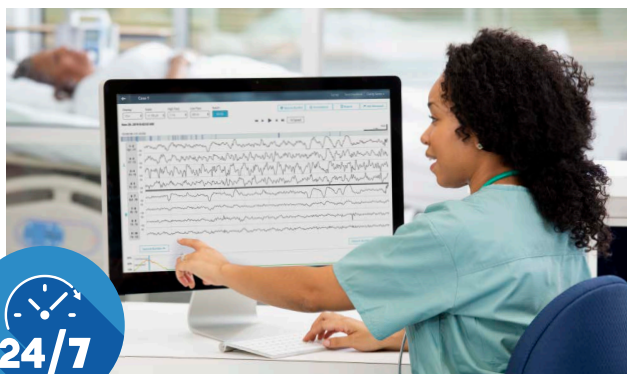


#### Confidence to rule out seizure

99% negative predictive value<sup>14</sup>



### Enhancing your EEG capability to 24/7 on-site monitoring



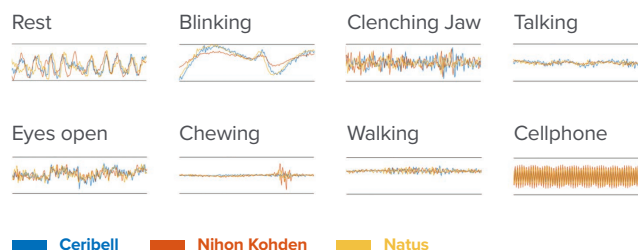
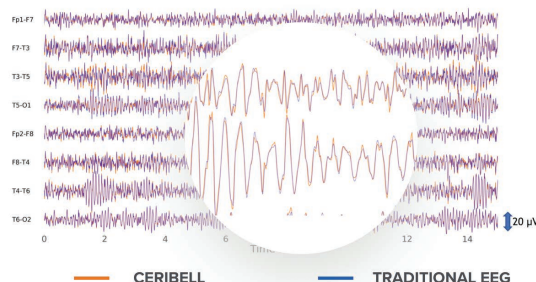
- Minimize delays in treating non-convulsive status epilepticus
- Avoid unnecessary anti-seizure medications
- Avoid unnecessary patient transfers
- Reduce patient length of stay





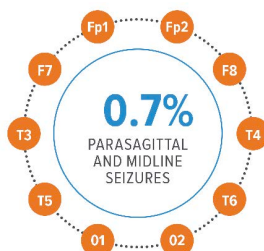
# Neurology teams can be confident in critical care rapid EEG results

## Ceribell's signal quality is equivalent to conventional EEG<sup>15</sup>

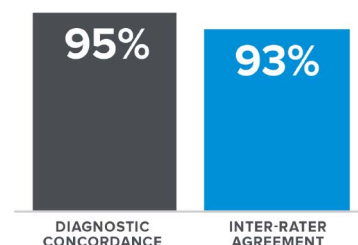


## EEG using a circumferential 10-electrode montage meets the gold standard

An assessment of 169,510 EEGs showed that midline and parasagittal focal seizures were found in only 0.7% of EEGs.<sup>16,17</sup>



Circumferential EEG had high diagnostic concordance (95%) with conventional EEG and had high agreement between EEG readers.<sup>18</sup>



### Care Provider Benefits

**24/7 rapid EEG access** for faster and better critical care decisions.

**Neurology EEG reading is covered** using existing CPT codes.

**Improve level of service and clinical care** by reducing wait time for stat EEGs.

#### Improve quality of life for EEG technologists

Quickly respond to stat EEG requests and ability to triage to long term monitoring to best utilize your techs' time and equipment.

#### Improve quality of life for neurologists

Clarity continuous seizure monitoring can be used by non-neurologists during after-hours to avoid late calls to neurologists. Ceribell offers easy remote access to EEGs from any device with an internet connection.

**Customize the workflow** to meet department-specific needs and patient selection criteria.

**Grow neuro-service line** without hiring additional EEG techs.

**Increase Neurology's Profitability** as Ceribell EEG is typically paid for by the operational budget of the department managing those patients (ICU, etc.), while neurology charges for reading fees.

**CAUTION: FEDERAL (US) LAW RESTRICTS THIS DEVICE TO SALE BY OR ON THE ORDER OF A PHYSICIAN. REFER TO OPERATOR MANUAL AND LABELING FOR INDICATIONS, CONTRAINDICATIONS, WARNINGS, PRECAUTIONS AND INSTRUCTIONS FOR USE.**

#### REFERENCES

1. Herman, S.T., et al. (2015) J Clin Neurophysiol. 32(2):87-95
2. Friedman, D., et al. (2009) Anesth Analg. 109(2):506-523
3. Young, G.B., et al. (1996) Neurology. 47(1):83-89
4. Beg, J.M., et al. (2017) J Med Econ. 20(1):45-53
5. Lowenstein, D.H., et al. (1993) Neurology. 43(3 Pt 1): 483-488
6. Brophy, G., et al. (2012) Neurocrit Care. 17(1):3-23
7. Panchal, A.R., et al. (2020) Circulation. 142(suppl 2):S366-S468
8. Vespa, P.M., et al. (2020) Crit Care Med. 48(9):1249-1257
9. Hirsch, L.J., et al. (2013) J Clin Neurophysiol. 30(1):1-27
10. Yazbeck, M., et al. (2019) J Neurosci Nurs. 51(6):308-312
11. Hobbs, K., et al. (2018) Neurocrit Care. 29(2):302-312
12. Kurup, D., et al. (2022) Epileptic Disorders. 24(5):1-7
13. Wright, N., et al. (2021) EMJ. 38(12):923-926
14. Kamousi, B., et al. (2021) Neurocrit Care. 34(3):908-917
15. Kamousi, B., et al. (2019) Clin Neurophysiol Practice. 4:69-75
16. Pedley, T.A., et al. (1981) Ann Neurol. 9:142-149
17. Gururangan, K., et al. (2019) Neurocrit Care. 32(1):193-197
18. Westover, M.B., et al. (2020) Neurocrit Care. 33(2):479-490
19. Centers for Medicare & Medicaid Services - Medicare Inpatient Hospitals - by Geography and Service (2020) CMS.gov



## Optimize patient care while positively impacting hospital finances

### Increased EEG access allows for accurate MS-DRG assignment for seizure-related CC/MCC<sup>19</sup>

Each EEG-triggered CC/MCC leads to \$5k to \$24K additional coding per case

Intracranial vascular procedures  
w pdx hemorrhage

\$23K

▲ = \$24K

\$47K

Intracranial hemorrhage  
or Cerebral infarction

\$5K

▲ = 5K

\$10K

Traumatic stupor  
& coma, coma < 1 HR

\$5K

▲ = 6K

\$11K

■ Base DRG w/MCC

■ (Major complication  
or comorbidity)

### Ceribell qualifies for the following EEG CPT codes

**Routine EEG Codes** - Codes include Professional and Technical components

Recording duration	8+ Channels - No video	
	Code	Code
20-40 Minutes	95816*	1.08
20-40 Minutes	95819*	1.08
41-60 Minutes	95812	1.08
61-119 Minutes	95813	1.63

\* 95816 Awake & Drowsy  
95819 Awake & Asleep

### Long-Term EEG Codes - PROFESSIONAL Component

Recording duration	Referred to as	Time of report	8+ Channels - No video	
			Code	Work RVUs
2-12 Hour	Partial day	Daily Report	95717	2.0
12-26 Hour	Full day	Daily Report	95719	3.0

### Long-Term EEG Codes - TECHNICAL Component

Recording duration	Monitoring - 8+ Channels - No video		
	None	Intermittent	Continuous
2-12 Hour	95705	95706	95707
12-26 Hour	95708	95709	95710

#### Ceribell should be used for:

- Complementing conventional EEG when tech/equipment is not available
- Critical care EEG
- Emergency EEG in ED or ICU to detect status epilepticus
- Prevention of treatment delays and of over-treatment

#### Ceribell should NOT be used for:

- Replacing long term video EEG monitoring
- Replacing conventional EEG to formally diagnose epilepsy